



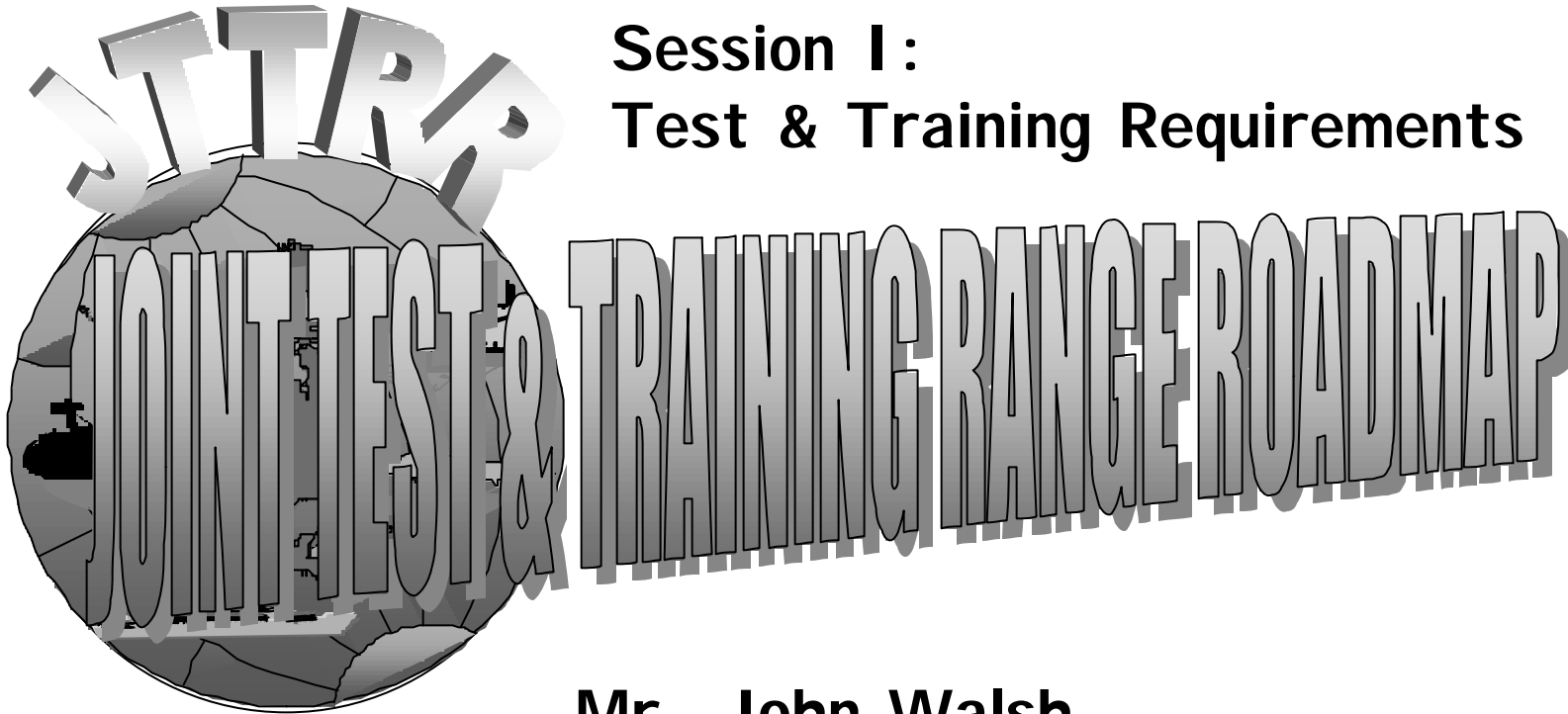
38th Annual NDIA Air Targets, UAVs, and Ranges Division Symposium and Exhibition



RESOURCES &
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READINESS &
TRAINING

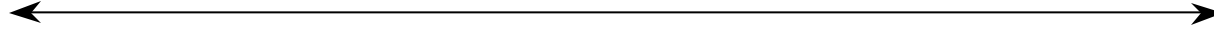
Session I: Test & Training Requirements



Mr. John Walsh
Assistant Director for Collective Training
DUSD(R) R&T



**RESOURCES &
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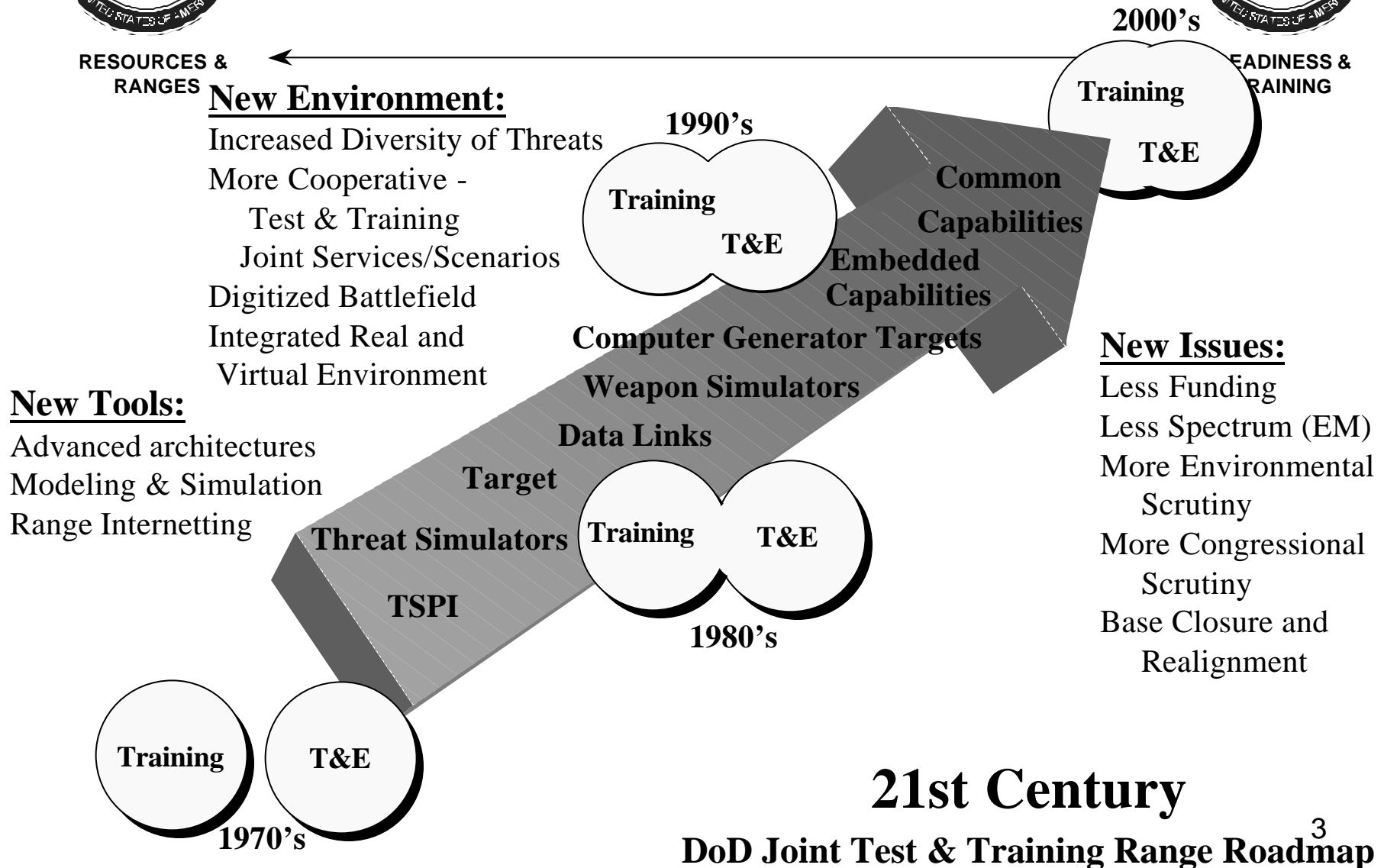


**READINESS &
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Why!?



Common Ground in Test & Training





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We Need a Good Way to Collectively Develop Instrumentation



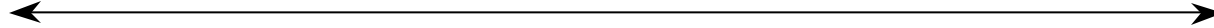
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- Consistent with Acquisition Reform - Involve all stakeholders
- Graphical representation of DoD developments in a given functional area... ex. ***"Targets"***
- Long range - beyond horizon where programs are locked in by constituency... **ex. *"AST"***
- Flexible design to allow for different methodologies to depict various functional areas... **ex. *Narrative vice graphic roadmap for "Mobile Ground Targets"***
- DoD stakeholders approve and support implementation

Developers build roadmap. Used by all intermediate decision forums.
DTTSG provide final endorsement.



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What!?



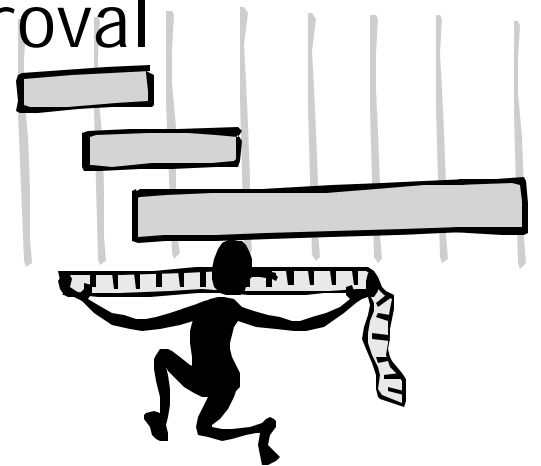
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What it Does



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- A guide for instrumentation investment
 - Fosters sharing, reuse, interoperability
- DTTSG developed document
 - Collective implementation & approval
- Roadmaps each area of range instrumentation
 - Links knowledge in field with program/budget authority in headquarters





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JTTRR Vision

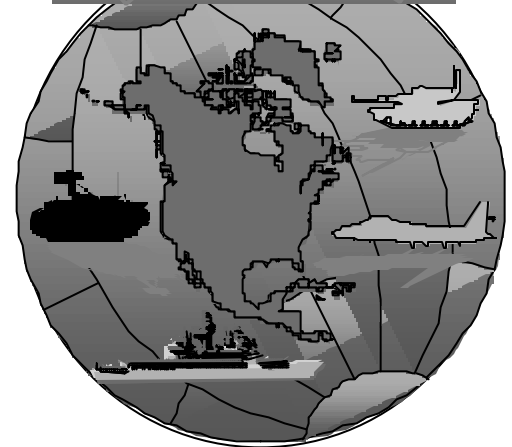


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“The Cost Effective Development
and Seamless Employment of
Range



Instrumentation While
Enhancing Joint and Mutual
Test and Training Capabilities”



December, 2000



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JTTRR Goals



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- Well defined planning process which identifies opportunities for collaborative instrumentation investment and use
- Foundation for common and interoperable instrumentation
- No unwarranted duplication
- Shared technology
- Jointly/mutually sustained DoD range instrumentation
- Increased cooperative use of range assets
- Multi-mission equipment



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How!?



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Comes with a Mandatory Policy



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- USD(A&T) (Dr. Gansler) 2 March Policy memo

All investments in the development and acquisition of major new Test and Training Range Instrumentation, to include major upgrades to legacy systems, will be roadmapped in accordance with the JTTRR process. The resulting roadmaps will be submitted to the DTTSG for approval.

- Major means \$1M in any year or \$5M over life of program
- "Test & Training" means all investments in either the test or training community, or joint T&T, that exceed the threshold
- Established POM 02 as baseline goal



Identifies Specific Instrumentation Categories



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- **Position/TSPI**
 - GPS Untethered
 - GPS Tethered
 - Multi-Phase
 - Ground Force
 - Surface/Subsurface
- **Targets**
 - Full scale Aerial
 - Rotary Wing
 - Supersonic Missiles
 - Subscale Subsonic
 - Seaborne
 - Aerial Tow
 - ARM
 - Mobile Ground

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- **Target Control Systems**
- **Scoring Systems**
 - Scoring onboard
 - Range Scoring
- **Range Communications**
 - Telemetry
- **Targets**
 - Threat Assessment Systems
 - Ballistic Missile Targets
 - Non-Mobile Ground Targets
- **Training Threat Systems**
- **TSPI, Radar**
- **Control & Display Systems**



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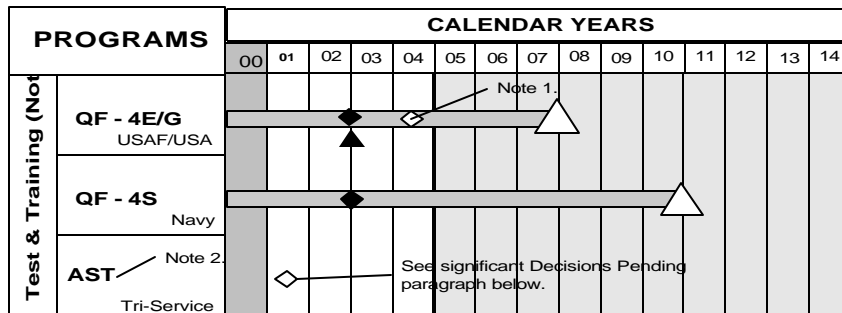
Provides an Understandable Graphical Representation



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Category: TARGETS Domain: Full Scale Aerial (Fixed Wing)

Description: Full scale, recoverable fixed wing targets capable of being maneuvered at mach speeds and altitudes up to and above 50,000 feet. May be flown by an onboard pilot or through a ground-based remote control system. Capable of emulating either manned or unmanned air-to-air or air-to-ground warfare systems for test and training purposes.



ROADMAP NARRATIVE

- Where Full-Scale aerial target instrumentation is tending:** Current systems rely on obsolescent or retired jet aircraft no longer required for operational employment. Presently, all full scale targets are drawn from Navy and Air Force F-4 stockpiles. The Air Superiority Target (AST) is the tri-Service replacement full scale aerial target program being considered to replace the current QF-4. Retired F-16 and F-18 aircraft may constitute this next generation of full scale targets.
- Significant decisions pending:**
 - Tri-Service decision on the need for AST and whether OSD will fund it as a CTEIP initiative or it will be funded by the Services. This AST decision is dependent on decisions made regarding the Live Fire target requirement beyond 2010, and whether that requirement can be met by a subscale target.
- Program interrelationships:**
 - Training has no investments in full scale targets. It uses T&E systems when full scale air targets are needed.
 - Although the Navy and Air Force use F-4 targets, differences in how the targets are used have resulted in different approaches to how they are maintained, controlled and expended.
 - All Services are expected to transition to a common full scale control system (MSTCS). An interoperable QF-4 will be dependent upon such a common target control system.

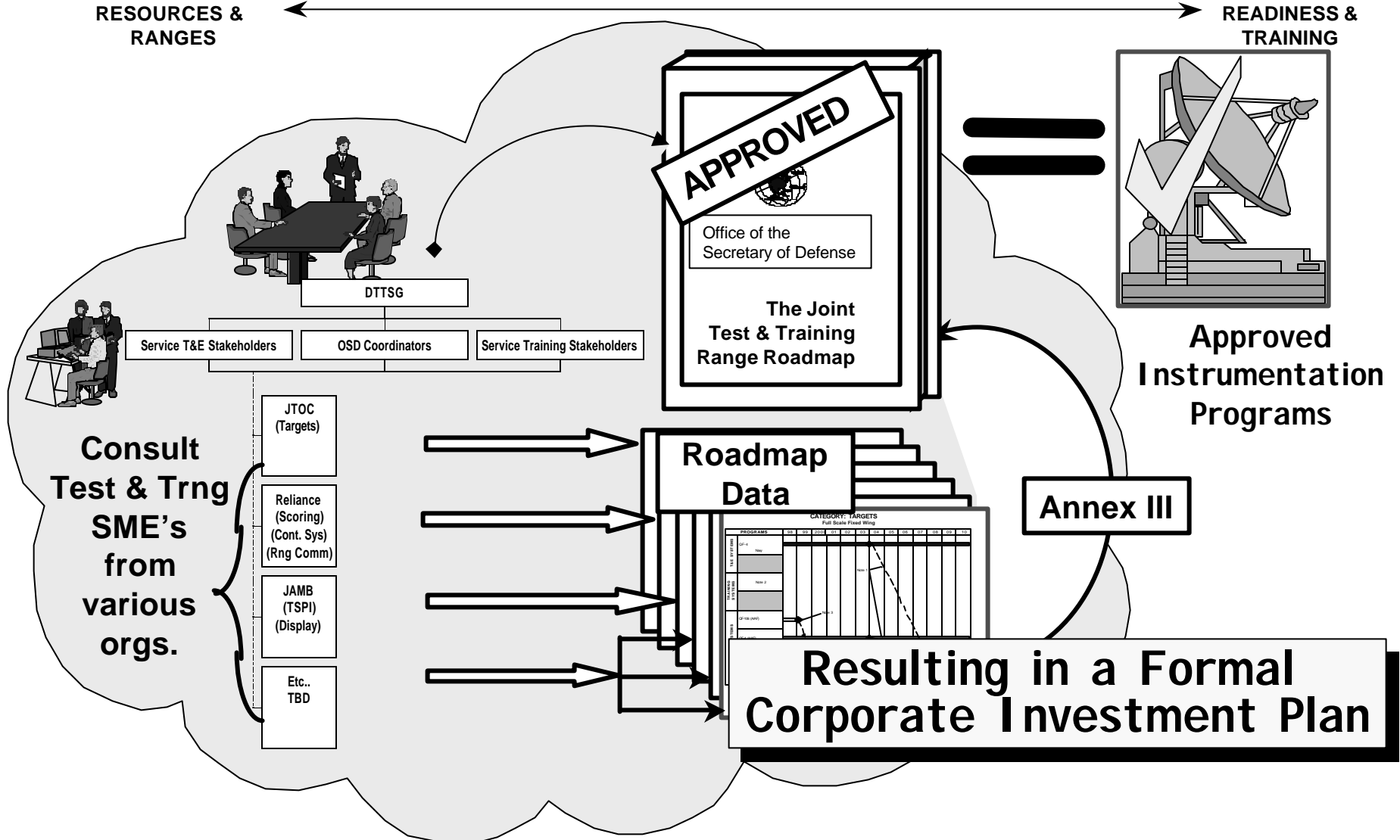


Institutes a Process



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Who!?

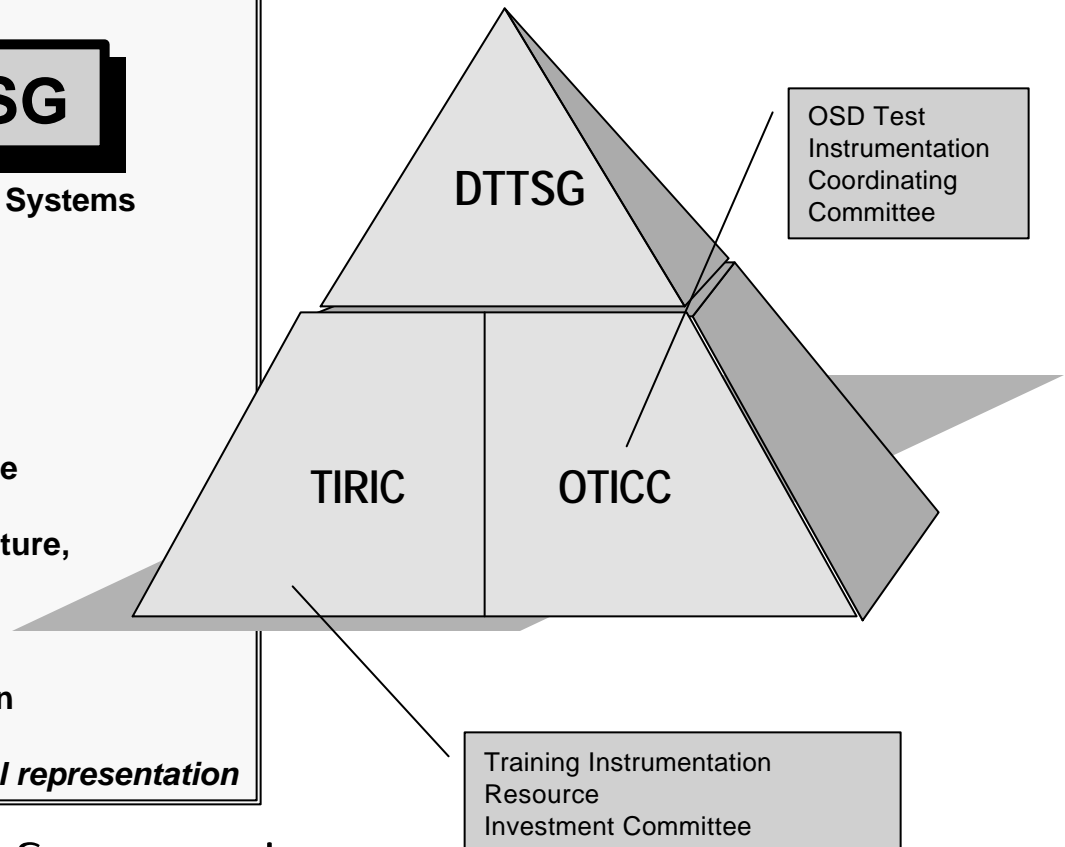


T&E and Training Investment Organization



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- A senior level focal point for range issues
 - “Change agent” at heart of test-and-training cooperation 15



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When!?



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Target Related Roadmaps to be Approved at the Next DTTSG



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- Targets: Supersonic Missile Target
- Targets: Rotary Wing Target
- Targets: Aerial Tow Target
- Targets: Anti-Radiation Missile Target
- Targets: Seaborne Systems
- Targets: Mobile Ground Target
- Targets: Full Scale Aerial Target
- Targets: Subscale Subsonic Target
- Control Systems: Target Control Systems
- Scoring Systems: Scoring Systems On-board 17



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Process & Timeline to Complete a follow-on Update by June 01



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Tasks

Timeline

Workshop for category / domain leads (TEC)	Mid/late October 2000
Begin re-draft of JTTRR report	November 2000
Leads develop inventory of Systems	November 2000
Leads prepare draft Roadmaps	December 2000
Progress Review(s) / Agree on Systems (TEC)	January 2001
DTTSG Progress Review 2001	Late January / early February
Populate / submit datasheets for Systems	February / March 2001
Develop smooth Roadmaps	March 2001
Progress Review(s)	April 2001
Prepare Smooth JTTRR Report	April 2001
Coordination	April - June 2001
Present to DTTSG for approval	June 2001



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Summary



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- JTTRR is critical to an efficient, coordinated DoD Test & Training Investment Program
- There is a strong commitment by senior leaders thru the DTTSG
- JTTRR is the key supporting document for planning the appropriate Joint Warfighter Test & Training Infrastructure
- Need to move on with the development of the roadmaps in accordance with April 1999 direction from USD(AT&L)

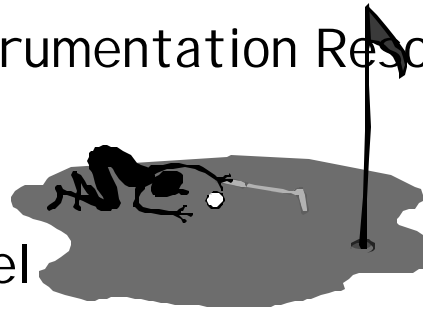
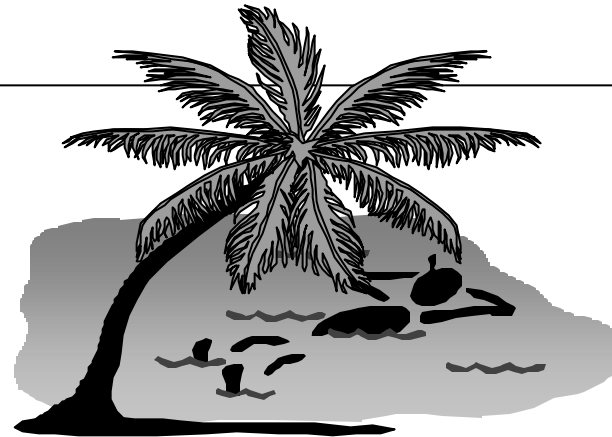


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Points of Contact



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- OSD

- Training: Mr. John Walsh
Chairman, Training Instrumentation Resource Investment Committee
(703) 695-1760
- Test: Mr. Dennis Mischel
DOT&E(RR) Targets Roadmap Coordinator
(703) 578-8222

- JTTRR Development

- Training: Mr. Lou Husser - (703) 578-5749
- T&E: Mr. Steve Seiden - (703) 575-0524



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Backups



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How the DTTSG Can Help with Range and Infrastructure Problems



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- Protect and enhance range investments and infrastructure
- Leverage programs to the advantage of both T&T communities where possible
- Respond to the T&T needs of the warfighting community where senior intervention makes sense
- Raise potential problems to DoD leadership in a timely manner
- Seek Congressional assistance/relief as necessary



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Interoperability



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- Major initiative throughout DoD - Working groups in OSD and JFCOM
- Both test and training implications
- Will require live and synthetic exercises for test, experimentation, and training
- Linking ranges will be a central challenge



Multi-Range Integration Success Story



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Chesapeake Regional Range Complex

- Cross Service/Cross T&T mission range consortium
 - 2 major test range participants
 - Patuxent River
 - Aberdeen Proving Grounds
- Offers capabilities across nearly all warfare areas including Joint operations
 - Extensive/diverse regional range arena